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HARGIS + ASSOCIATES, INC.
Consultants in Hydrogeology

2223 Avenida De La Playa, Suite 300
La Jolla, California 92037
(619) 454-0165

June 9, 1986



Mr. Angelo Bellomo
Chief, Southern California Section
Toxic Substances Control Division
DEPARTMENT OF HEALTH SERVICES
107 South Broadway, Room 7128
Los Angeles, CA 90012

RE: Off-Site Field Data; Montrose Site, Torrance, CA

Dear Mr. Bellomo:

Enclosed please find a copy of the report entitled:

PRELIMINARY FIELD DATA FROM
ROUND 1 OFF-SITE SAMPLING
MONTROSE SITE
TORRANCE, CALIFORNIA

This report was forwarded to the EPA on June 4, 1986.

If you have any questions regarding the enclosed information, please do not hesitate to contact me.

Sincerely,

HARGIS + ASSOCIATES, INC.

Edward A. Nemecek

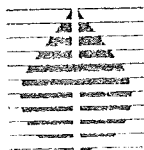
Edward A. Nemecek
Senior Associate

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Enclosure

June 3, 1986

PRELIMINARY FIELD DATA FROM
ROUND 1 OFF-SITE SAMPLING
MONTROSE SITE
TORRANCE, CALIFORNIA



HARGIS+ASSOCIATES, INC.
Consultants in Hydrogeology



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INFORMATION SHEET FOR BACKGROUND SAMPLES
(See Background Soils Sample Locations Map)

<u>Date</u>	<u>Sample no.</u>	<u>Depth (ft)</u>	<u>Location</u>	<u>Time</u>
5/5/86	5-5-S(B)	0.5 - 1.0	Between 1818 and 1828 Oak Street, Torrance, CA	20:00

Soil Description: SILTY SAND Light brown, dry, loose to compact, some roots and plant material, sand is fine to medium.

<u>Date</u>	<u>Sample no.</u>	<u>Depth (ft)</u>	<u>Location</u>	<u>Time</u>
5/8/86	5-8-S(B)	0.5 - 1.0	Northeast corner of Emerald Street and Madrona Avenue	18:00

Soil Description: SAND Brown; damp; dense; very fine grained, trace of silt; subrounded quartz grains predominate.



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EXPLANATION FOR LOGS

Samples were collected from all soil borings except MD-3 using a split tube drive sampler with the following specifications:

Sampler O.D.: 2-1/2 inches
Split Barrel: 18 inches: fitted with three six-inch long by two-inch ID thin wall brass tubes
Drive Shoe: 0.25 feet effective length
Slough Barrel: 6 inches long

The drill rig used was a 4-wheel drive truck-mounted hollow auger type R16. The sampler was driven using a 140 lb. hammer falling 30 inches. The sampler was driven starting from the ground surface, unless asphalt pavement or railroad road bed was present in which case a hollow auger was used to penetrate the surficial material and allow unobstructed access to the underlying soil. The borehole was advanced by re-entering the hole created by the previous drive, whenever possible. Augering was generally not required under normal circumstances. Boring MD-3 was advanced with hand augering equipment due to lack of drill rig access. Samples were obtained using a six-inch hand driven sampler fitted with a two-inch diameter thin wall brass tube.

Boreholes were logged based on the undisturbed soil obtained from the drive shoe and, if recovery was adequate, from the slough barrel and partially filled or spare brass sample tubes. Blow counts were recorded for six-inch intervals penetrated. Sample numbers were assigned using the sample location code followed by the depth at the lower end of the brass tube.

The laboratory was instructed to obtain the soil sample for analysis from the bottom of the brass tube. If a split sample was required, the adjacent ends of adjoining tubes were sampled.

A Century Model OVA 128 flame ionization type organic vapor analyzer was used to screen soil obtained from above and below the sample obtained for laboratory analysis. The OVA was calibrated to read in ppm of methane. Because the meter response varies with other types of volatile organics the readings should only be considered a qualitative indication of vapor concentration. OVA readings in equivalent parts per million of methane are presented on the logs at the depth interval sampled. The soil OVA reading is shown on the left side of the slash, and background OVA readings, where available, are shown to the right of the slash.

Field verified locations of soil borings are indicated on Figure 1.

EXPLANATION OF TERMS

E & E
H + A

Ecology and Environment sample
Hargis + Associates, Inc.

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LOS

LOG OF SOIL BORING MD1

Date: April 30, 1986

Weather: Moderate wind from southeast; hazy.

	Sample Interval & Designation	OVA (ppm)	Blow Counts
0			
		6/6	3
	MD1-1 (H+A)		1
1		6/6	2
2	MD1-2.5 (H+A)		6
			10
3	MD1-3.5 (H+A)		11
4			15
		7/	
	MD1-5 (H+A)		19
5	MD1-5.5 (H+A)		26
		7/	

Depth
Interval
(feet)
1 - 1.75

Soil Description

SILT: Dark brown, moist, non-plastic. Upper 0.5 feet dry, moist below one foot.

2.0 - 4.5

CLAYEY SILT: Brown with dark brown mottle, damp, stiff to very stiff, fine sand. Some caliche from 3.4 to 3.75.

HARD'S ASSOCIATES

LOG OF SOIL BORING MD2

Date: April 30, 1986

Weather: Windy from South, scattered thin clouds; sunny.

Sample Interval & Designation	OVA (ppm)	Blow Counts
	OVA NOT WORKING	3
E&E		3
MD2-1.5 (H+A)		3
		4
MD2-2.75 (H+A)		5
E&E		5
MD2-3.75 (H+A)		7
		11
MD2-5 (H+A)		13
MD2-5.5 (H+A)		15
		19

Depth Interval (feet)
0

Soil Description
SILT: Dark brown, slightly damp, firm, non-plastic.

1.5 - 1.75 CLAYEY SILT: Dark brown with black carbon mottle, slightly damp, firm, slightly plastic; some sub-angular crushed rock; granitic.

3.75 - 4.0 CLAYEY SILT: Dark brown, moist, stiff, plastic.

6.0 - 6.25 CLAYEY SILT: Brown with tan mottle, slightly damp; very stiff, some caliche and bluish black oxide staining.

BARRE ASSOCIATES

LOG OF SOIL BORING MD3

Date: May 19, 1986

Weather: 78°F; sunny, clear.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - 0.25	GRAVEL: (Railroad Bed) Gray, dry, loose angular to subangular.
				0.25 - 0.75	CLAYEY SILT: Dark brown, damp, soft, plastic, very sticky.
1	MD3-1.25 (H+A)			1.25 - 1.75	SAME AS 0.25 - 0.75
2	MD3-2.25 (H+A)			2.25 - 3.0	SAME AS 0.25 - 0.75
3	MD3.-3.5 (H+A)			3.50 - 3.75	SAME AS 0.25 - 0.75
4	MD3-4.25 (H+A)				
5	MD3-5.0 (H+A)				

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LOG OF SOIL BORING MD4

Date: April 30, 1986

Weather: Cool, overcast; light wind from East.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0	MD4-0.25			0 - 0.75	GRAVEL (Road Bed): Gray, dry loose, 0.1 to 3.0 inch, angular, vesicular.
1				0.75 - 1.5	CLAYEY SILT: Dark brown, slightly damp, firm to stiff.
		6.5/	4		
	MD4-2 (H+A)		6		
2		6.5/	5		
3			5		
		9/			
	MD4-3.75 (H+A)		7		
4	MD4-4.25 (H+A)		10	4.25 - 4.5	CLAYEY SILT: Same as 0.75 - 1.5 except percent of clay increases; dark brown with brown mottle.
		9/9			
5			15		
		8/			
	MD4-5.75 (H+A)		17	6.25 - 6.5	SILT: Brown, dry, hard, some caliche inclusions; non-plastic.
6	MD4-6.25	8/	23		

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LOG OF SOIL BORING MD5

Date: April 29, 1986

Weather: Cool, clear, windy.

Sample Interval & Designation	OVA (ppm)	Blow Counts
	6/	1
MD5-1 (H+A)		3
		5
	6/	
	6/	
		4
MD5-3 (H+A)		4
MD5-3.5 (H+A)		6
	6/	
MD5-4.5 (H+A)	6.5/	9
		12
MD5-5.5 (H+A)	6.5/6.5	16

Depth Interval (feet)
0 - 0.5

Soil Description

SANDY, GRAVELLY SILT: Light brown, dry, loose. Sand is fine to coarse, gravel is sub-angular, up to one inch.

1.0 - 2.5

SILT: Dark brown, slightly damp, soft, specks of plant material.

5.5 - 5.75

SANDY SILT: Light brown, slightly moist, firm, sand is very fine.

HALL'S ASSOCIATES

LOG OF SOIL BORING MD6

Date: April 29, 1986

Weather: Windy, clear, warm.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0	E & E	8/8	2		
	MD6-1.0 (H+A)		4		
1	E & E		9		
		8/		1.5 - 1.75	CLAYEY SILT: Dark brown, slightly damp, stiff, moderately plastic.
		7.5/			
2			8		
	MD6-3.0 (H+A)		10		
3	MD6-3.5 (H+A)		12		
		7.5/		3.5 - 3.75	CLAYEY SILT: Brown, moist, firm, plastic.
4		7.5/	9		
	MD6-4.75 (H+A)		11		
5	MD6-5.25 (H+A)		9		
	MD6-5.75 (H+A)			5.75 - 6.0	SANDY SILT: Light brown with tan mottle, damp, firm, non- plastic.
6		7.5/			

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LOG OF SOIL BORING JC1

Date: May 1, 1986

Weather: 71°, moderate wind from west, sunny, scattered clouds.

Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
			0 - 0.5	ASPHALT
		7	0.5 - 0.75	SANDY GRAVEL (Base Coarse)
		8	1 - 1.5	CLAYEY SILT: Brown, damp, stiff, slightly plastic, some specks of orange powder-like material <1/16" in size, slight sweet odor.
JC1-2 (H+A)		11	2 - 2.25	CLAYEY SILT: Brown, damp, very stiff, some small wood fragments, slight sweet odor.
	6.5/6.5			
		14		
	9/			
JC1-3.25 (H+A)		22		
EAE		20		
JC1-4.25 (H+A)		22	4.25 - 5.25	CLAYEY SILT: Brown with orange brown mottle, damp to moist, hard, no odor, caliche inclusions.
	9/			
	6.5/5.5	20		
JC1-5.75 (H+A)		19		SILT: Light brown with small <1/8" brown specks, slightly moist, hard, slightly plastic
JC1-6.25 (H+A)		23	6.25 - 6.5	trace of fine sand, no odor.

HAPUS ASSOCIATES

LOG OF SOIL BORING JC2

Date: May 1, 1986

Weather: 68 F; Cloudy, strong wind from west.

	Sample Interval & Designation	OVA (ppm)	Blow Counts
0			5
	JC2-1 (H+A)	1	6
1	JC2-1.5 (H+A)		11
		1	
2			8
			11
3	JC2-3.25 (H+A)	1	12
	JC2-3.75 (H+A)		13
4		1	11
		1	
5	JC2-5 (H+A)		12
	JC2-5.5 (H+A) Split		13
			13
6			

Depth Interval (feet)
0 - 0.5

Soil Description

SANDY SILT: Light gray brown, dry, stiff; slightly plastic, trace of gravel, sand is fine grained.

1.5 - 1.75

SILT: Dark brown, damp to moist, stiff to very stiff, occasional thin layer of sand, moderately plastic, specks of yellow powder-like material.

6.0 - 6.25

SILT: Light brown, damp, very stiff, moderately plastic, trace of fine sand.

MARCIS ASSOCIATES

LOG OF SOIL BORING JC3

Date: May 1, 1986

Weather: 73°F; moderate wind from West; clear, sunny.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0	ASPHALT
				.25 - .75	SANDY GRAVEL (Base Coarse)
1		7.5/5		0.75 - 1.25	CLAYEY SILT: Dark brown with orange mottle, damp to moist, stiff, moderately plastic; wood and glass pieces.
	JC3-1.75 (H+A)		5		
2	JC3-2.25 (H+A)		6		
	JC3-2.75 (H+A)		7		
		6		2.75 - 3.25	CLAYEY SILT: Brown with gray brown and orange brown mottle; some purplish streaking. Moist, stiff; moderately plastic; some white powdery specks. No odor.
3		5/5			
	JC3-3.75 (H+A)		9		
4	JC3-4.25 (H+A)		9		
		7/5			
			11		
5	E&E		14		
	E&E		16		
6					

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LOG OF SOIL BORING JC3 (continued)

Date: May 1, 1986

Weather: 73°F; moderate wind from West; clear, sunny.

Sample Interval & Designation	OVA (ppm)	Blow Counts
JC3-6.5 (H+A) Split		16
	5.5/5.5	

Depth
Interval
(feet)

Soil Description

6.5 - 6.75

CLAYEY SILT: Brown with orange brown streaks, damp, very stiff. Moderately plastic specks of white powder.

HARGIS - ASSOCIATES

LOG OF SOIL BORING JC4

Date: May 1, 1986

Weather: Southwesterly wind; partly cloudy; warm, 70°F.

0	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
				0 - 0.25	ASPHALT AND ASPHALT BASE
		6/6	3	0.25 - 0.75	SILTY CLAY: Dark brown, moist, firm to stiff, plastic. Slight sweet odor.
1	JC4-1.25 (H+A)		5	1.25 - 1.75	SAME AS 0.25 - 0.75, except no odor.
		6.5/	6		
2	JC4A-2.33				
		5.5/	6		
	JC4-3 (H+A)		8		
3	E&E		9	4.0 - 4.5	CLAYEY SILT: Brown, damp, very stiff to hard, slightly to moderately plastic.
	JC4-4 (H+A)		12		
		5/			
			11		
5	JC4-5.5 (H+A)		13		
			19		
6		5.5/5.5			

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LOG OF SOIL BORING JC5

Date: April 30, 1986

Weather: Moderate wind from the West, sunny; high thin clouds.

0	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
				0 - .5	ASPHALT BASE
		10/9.5	4		
	JC5-1 (H+A)		4		
1		7.5/	6	1 - 1.5	CLAYEY SILT: Dark brown, slightly damp, firm to stiff, cohesive, caliche, traces of plant material. Slight sweet odor.
2	JC5-2.5 (H+A)	9.5/9.5	6		
		7.5/			
	JC5-3 (H+A)		9		
3	JC5-3.5 (H+A)	7.5/	11	3.5 - 3.75	CLAYEY SILT: Dark brown, moist, very stiff. Slight sweet odor.
		9.5/			
4			13		
	JC5-5 (H+A)		15		
5	JC5-5.5 (H+A)		17	5.5 - 5.75	CLAYEY SILT: Brown, damp, very stiff. No odor, caliche, trace of very fine sand.

HARCIS ASSOCIATES

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LOG OF SOIL BORING LA4

Date: May 2, 1986

Weather: Warm, sunny; light wind from West, 75°F.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			5	0	SILT: Dark brown, dry, stiff, slightly plastic, plant material to 1.75 feet.
	LA4-1.0 (H+A)		5		
1	LA4-1.5 (H+A)		7		
		6/5		1.5 - 1.75	SILT: Dark brown with brown mottle slightly damp, stiff; caliche inclusions, lenticular; matrix is also carbonaceous.
2		7.5/	23		
			37	2.25 - 2.75	SAME AS 1.5 - 1.75
		6/6.5			
3	LA4-3.25 (H+A)		47		
		8.5/		3.25 - 4.0	SANDY SILT: Light brown, damp, hard, non-plastic, no carbonate.
		8.5/			
			5		
4		7.0/6.5			
	LA4-4.5 (H+A)		11		
	E&E		17		
5	LA4-5.5 (H+A) Split		17		
		6.5/			
6					

HARCIS - ASSOCIATES

LOG OF SOIL BORING LA5

Date: May 2, 1986

Weather: Blue sky; shifty, light winds.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			7	0 - 0.5	SILT: Dark brown, dry, stiff to very stiff, non-plastic, plant material.
		7/7			
	LA5-1 (H+A)		9		
1		10/			
			17		
		7.5/7		1.25 - 1.75	CLAYEY SILT: Dark brown, damp, hard, slightly plastic, caliche inclusions; plant roots.
2	LA5-2.25 (H+A)		24		
	E&E		23		
		7.5/		2.75 - 3.0	SAME AS 1.25 - 1.75, except percent caliche increases.
3			11	3.0 - 3.5	SAME AS 1.25 - 1.75, except there is brown mottle.
		8/7			
	LA5-4 (H+A)		15		
4					
	LA5-4.5 (H+A)		18		
	LA5-5 (H+A) Split		25		
5		8/		5.0 - 5.25	SANDY SILT: Light brown, damp, hard; non-plastic, matrix is carbonaceous.

HARGIS ASSOCIATES

LOG OF SOIL BORING LA8

Date: May 5, 1986

Weather: Warm, light wind from south-southeast; scattered clouds; 75°F.

Depth Interval (feet)	Soil Description	
0 - .5	CLAYEY SILT: Light to hard brown, dry to slightly damp, stiff to very stiff, slightly plastic.	
	Sample Interval & Designation	OVA (ppm)
		Blow Counts
		6
		7.2/6.9
	LA8-1.0 (H+A)	8
1	LA8-1.5 (H+A)	9
		7.4/7.2
1.5 - 1.75	SAME AS 0-0.8, except slightly moist to moist.	
1.75 - 2.25	SAME AS 1.5-1.75	
		20
		6.0/5.2
	LA8-2.75 (H+A)	25
3	LA8-3.25 (H+A)	27
		6.4/5.2
3.25 - 3.5	SAME AS 1.5-1.75, except with caliche inclusions.	
3.5 - 3.75	SAME AS 3.25-3.5	
		18
		5.0/5.0
3.75 - 4.25	SILT: Greenish grayish tan slightly damp, hard; slightly plastic, caliche inclusions, matrix is slightly carbonaceous.	
	LA8-4.75 (H+A)	27
5	LA8-5.25 (H+A)	27
		4.9/4.9

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA9

Date: May 5, 1986

Weather: Warm, sunny, 80°F; light wind from south.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0	LA9-0.5 (H+A)	6.2/6.0	6		
			8	0.5 - 1.0	CLAYEY SILT: Dark brown, dry to slightly damp, stiff to very stiff; slightly plastic, blocky roots.
1	LA9-1.5 (H+A)	6.4/6.2	8		
		7.8/7.0		1.5 - 2.25	SAME AS 0.5-1.0, except slightly damp.
2			19		
	LA9-2.75 (H+A)		27		
		6.2/6.2	35	2.75 - 3.5	SAME AS 0-1.0, except slightly damp, some caliche inclusions.
3		7.4/6.4			
	LA9-4.25 (H+A)		23		
4		6.0/6.0	22	4.25 - 4.75	CLAYEY SILT: Carbonaceous inclusions slightly plastic.
	LA9-5.25		18		
5		7.2/6.4		5.25 - 5.5	SILT: Light brown to tan, slightly damp; some very fine grained sand, very friable.

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA10

Date: May 5, 1986

Weather: 72°; moderate wind from West; scattered clouds.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - .25	CLAYEY SILT: Dark brown, dry, stiff, slightly plastic, plant roots, block fracture, no carbonate.
	LA10-0.75 (H+A)		6		
		3.8/4.0			
1		4.0/4.0			
	LA10-1.75		10		
		4.0/4.0			
2				2.25 - 2.75	CLAYEY SILT: Dark brown, damp, very stiff, moderately plastic, a few caliche inclusions.
			14		
		2.6/2.6			
3	LA10-3.25 (H+A)		20		
	LA10-3.75 (H+A)		27		
		2.9/2.9		3.75 - 4.50	SILT: Brown with tan mottle, slightly damp, hard, moderately plastic, much caliche (tan); trace clay.
4			21		
	LA10-5.0 (H+A)		23		
5		3.0/2.2		5.0 - 5.25	SILT: Light brown with tan mottle, dry to slightly damp, hard. A few fine roots, slightly plastic, friable, matrix is slightly carbonaceous.
		2.6/2.2			

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA11

Date: May 5, 1986

Weather: 73°F; moderate wind westerly; sunny with scattered clouds.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				.25 - .75	SANDY SILT: Brown, slightly moist, stiff, slightly plastic; some small gravel near surface; sand is predominantly very fine with a trace of medium coarse.
		3.2/3.2	8		
1	LA11-1.25 (H+A)		7		
	LA11-1.75 (H+A)		8	1.75 - 2.0	CLAYEY SILT: Dark brown, damp, stiff, moderately plastic, a few hair-like roots.
		3.2/3.2			
2	LA11-2.75 (H+A)		8	2.75 - 3.25	SAME AS 1.75-2.0 except damp to moist with a few caliche inclusions.
		5.6/5.4	7		
3	LA11-3.75 (H+A)		9	3.75 - 4.0	SAME AS 2.75-3.25 except dark brown with brown mottle.
		5.6/5.6			
4			9		SILT: Brown, damp to moist, very stiff, crumbles easily, slightly to moderately plastic; trace of very fine sand and clay.
		6.1/6.1			
5	LA11-5.25 (H+A)		10	5.75 - 6.0	
	LA11-5.75 (H+A) Split		9		
6		4.2/4.2			

HARDIS - ASSOCIATES

LOG OF SOIL BORING LA12

Date: May 6, 1986

Weather: 63°; light breeze from West; scattered clouds.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0.25 - 0.75	CLAYEY SILT: Brown with light brown mottle, damp to moist, stiff to very stiff, moderately plastic, some coarse sand and gravel; subangular, some plant material.
		4.0/4.0	10		
1	LA12-1.25 (H+A)		7		
	LA12-1.75 (H+A)		11		
		4.0/4.0		1.75 - 2.0	CLAYEY SILT: Dark brown, very stiff, moderately plastic, no caliche.
2					
	LA12-2.75 (H+A)		7		
			10	2.75 - 3.25	CLAYEY SILT: Dark brown with slight brown mottling, damp, very stiff, moderately plastic.
		4.0/4.0			
3	LA12-3.75 (H+A)		12		
		5.0/4.2		3.75 - 4.0	CLAYEY SILT: Brown with light brown mottle, damp, moderately plastic, very stiff, traces of carbonate in matrix.
4				4.25 - 4.75	SAME AS 3.75 - 4.0.
			12		
		4.0/4.0			
5	LA12-5.25 (H+A)		13		
		4.0/4.0		5.25	SAME AS 3.75 - 4.0 except less clayey, slightly plastic and slightly damp.

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA13

Date: May 6, 1986

Weather: 64°; sunny, light to moderate wind from West; clear.

Depth Interval (feet)	Sample Interval & Designation	OVA (ppm)	Blow Counts	Soil Description	
				Depth Interval (feet)	Soil Description
0 - 0.5				0 - 0.5	SANDY GRAVEL (Road Base): Tan gray, dry, compact, gravel is angular to subangular (<1").
		4.8/4.8	13		
	LA13-1.25 (H+A)		8		
	LA13-1.75 (H+A)		5		
1.75 - 2.0		4.8/4.6		1.75 - 2.0	CLAYEY SILT: Dark brown, damp, stiff, moderately plastic, some orange specks.
		4.8/4.8	8		
	LA13-3.25 (H+A)		7		
	LA13-3.75 (H+A)		5		
3.75 - 4.25		6.2/5.4		3.75 - 4.25	CLAYEY SILT: Dark brown with brown mottle, damp, stiff, moderately plastic, no caliche.
		4.8/4.8	7		
	LA13-5.0 (H+A)		11		
5.5 - 5.75	LA13-5.5 (H+A)		12	5.5 - 5.75	CLAYEY SILT: Brown with dark brown and tan mottle, slightly damp to damp, very stiff, slightly to moderately plastic, caliche inclusions.
		5.0/4.8			

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA3

Date: May 6, 1986

Weather: 62°; sunny, partly cloudy; strong wind from West.

Depth Interval (feet)	Sample Interval & Designation	OVA (ppm)	Blow Counts	Soil Description	
				Soil Description	
0 - 0.50		3.4/3.4	5	SILT: Brown to light brown, dry, stiff, non-plastic, fine roots.	
	E&E		5		
1.5 - 1.75	LA3-1.5 (H+A) Split		7	CLAYEY SILT: Dark brown with light brown mottle, slightly moist, stiff, slightly plastic, fine roots.	
	LA3-2.25 (H+A)		9		
	E&E		11		
	LA3-3.25 (H+A)		14		
3.25 - 3.5		2.8/2.6		SAME AS 1.5-1.75: Except moderately plastic, no roots.	
3.5 - 4.0				SAME AS 1.5-1.75	
			21		
		2.6/2.6			
	LA3-4.5 (H+A)		25		
	LA3-5.0 (H+A)		25		
5 - 5.25		3.0/2.8		SILT: Brown, moist, hard, non-to slightly plastic, friable, trace of very fine sand.	

HARGIS - ASSOCIATES

LOG OF SOIL BORING LA6

Date: May 6, 1986

Weather: 65°; sunny, clear; strong wind from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			6	0 - 1	CLAYEY SILT: Dark brown with brown mottle, dry at surface, slightly damp below, stiff to very stiff, slightly to moderately plastic, blocky to flaky fracture.
	LA6-1.0 (H+A)		11		
1		2.9/2.9		1 - 1.25	SAME AS 0 - 1
			7		
2			9	2 - 5.5	CLAYEY SILT: Dark brown, moist, very stiff, moderately plastic.
		2.6/2.6			
	E&E		12		
3	LA6-3.25		13		
		2.6/2.6			
			17		
4	LA6-4.5 (H+A)		25		
	E&E		23		
5	LA6-5.5 (H+A) Split		24	5.5 - 5.75	SILT: Brown to light brown, slightly damp, hard, very friable, non-plastic, trace of very fine sand.
		2.8/2.8			

HARGIS ASSOCIATES

LOG OF SOIL BORING LA7

Date: May 6, 1986

Weather: 68°F; sunny, clear; strong wind from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			8	0 - 0.5	CLAYEY SILT: Dark brown, dry at surface, slightly moist below, very stiff, slightly plastic; blocky fracture, many fine roots.
		2.2/2.2			
	LA7-1.0 (H+A)		10		
1		2.2/2.2		1 - 1.25	SAME AS 0-0.5
				1.25 - 1.75	SAME AS 0-0.5
			6		
		2.6/2.6			
2	LA7-2.25 (H+A)		12		
	E&E		19		
3	LA7-3.25 (H+A)		19		
		2.6/2.4		3.25 - 3.75	SILT: Brown with light brown mottle, slightly moist, very stiff, slightly plastic to non-plastic. Trace of carbonate in matrix, a few caliche inclusions.
4	LA7-4.25 (H+A)	2.2/2.2	25		
	LA7-4.75 (H+A) Split		29		
5	LA7-5.25 (H+A)		29		
		2.2/2.2		5.25 - 5.5	SILT: Light brown to tan, slightly moist, hard, non-plastic, trace of very fine sand, trace of caliche; very friable.

HAROS ASSOCIATES

LOG OF SOIL BORING LA14

Date: May 6, 1986

Weather: 66°F; sunny; wind moderate from West; few scattered clouds.

0	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
			14	0 - 1	SANDY GRAVEL: Grayish tan, slightly moist, compact, gravel is subangular, sand is fine to coarse.
		3.0/3.0			
1	LA14-1.25 (H+A)		8	1 - 1.5	CLAYEY SILT: Dark brown, damp stiff, moderately plastic. Some orange specks.
	LA14-1.75 (H+A)		6		
		3.1/3.0			
2			6	2.5 - 2.75	CLAYEY SILT: Dark brown, damp stiff, moderately plastic.
		3.2/3.0			
3	LA14-3.25 (H+A)		8		
	LA14-3.75 (H+A)		10	3.75 - 4.0	CLAYEY SILT: Dark brown, damp, stiff, moderately plastic.
		3.4/			
4			7	4.0 - 4.5	CLAYEY SILT: Dark brown, damp, stiff, moderately plastic, occasional light brown mottling.
		3.2/3.2			
	LA14-5.0 (H+A)		10		
5	LA14-5.5 (H+A) Split		12	5.5 - 5.75	CLAYEY SILT: Dark brown, damp, stiff, moderately plastic, occasional light brown mottling.
		5.4/4.6			

HARPO ASSOCIATES

LOG OF SOIL BORING T61

Date: May 7, 1986

Weather: 67°F; clear; light breeze from East.

Sample Interval & Designation	OVA (ppm)	Blow Counts
	6.2/6.2	7
T61-1.25 (H+A)		5
T61-1.75 (H+A)		7
	8.0/6.4	
T61-2.75 (H+A)		11
T61-3.25 (H+A) Split		13
T61-3.75 (H+A)		15
	8.2/5.4	
	4.8/4.8	
T61-4.75 (H+A)		11
T61-5.25 (H+A) Split		14
	6.8/5.2	

Depth
Interval
(feet)
0 - 0.75

Soil Description

SILT: Dark brown with brown mottle, slightly damp, stiff, friable, blocky fracture with white specks on fracture surfaces.

1.75 - 2.0

CLAYEY SILT: Brown with dark brown mottle, slightly damp to damp, very stiff, moderately plastic.

3.75 - 4.0

SILT: Light brown, slightly damp, very stiff, friable, trace of very fine sand. Matrix is slightly carbonaceous.

5.25 - 5.5

SAME AS 3.75 to 4.0, EXCEPT: Brown with light brown mottle, and matrix is non-carbonaceous.

LOG OF SOIL BORING T63

Date: May 7, 1986

Weather: 72°F; clear, sunny; light breeze from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - 0.25	SILT: Light gray brown, dry to slightly moist, soft, friable, trace of fine sand.
			2		
1	T63-1.25 (H+A)		5		
	T63-1.75 (H+A)		8		
		5.6/5.2		1.75 - 2.0	CLAYEY SILT: Dark brown with light brown mottle, slightly moist to moist, stiff. Some small gravel and wood chips and iron oxide staining.
2		5.8/5.4			
	T63-2.75 (H+A)		12		
		5.2/5.1	14	2.75 - 3.25	SILT: Brown with occasional dark brown patches, slightly moist, very stiff, friable, with traces of very fine sand.
	T63-3.75 (H+A)		12		
		5.6/5.1		3.75 - 4.0	SAME AS 2.75 to 3.25
4		6.3/5.5		4.25 - 4.75	SAME AS 2.75 to 3.25
			13		
		6.7/5.4			
5	T63-5.25 (H+A)		14		
		5.7/5.4		5.25 - 5.5	SAME AS 2.75 to 3.25

HARVEY ASSOCIATES

LOG OF SOIL BORING T64

Date: May 7, 1986

Weather: 76°F; clear, sunny; moderate wind from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			2		
1	T64-1.0 (H+A)		3	1 - 1.5	CLAYEY SILT: Dark brown with brown mottle, damp, firm to stiff, moderately plastic, some small subangular gravel (<1/2").
		3.5/3.5	5		
2	T64-2.0 (H+A)		6	2 - 2.25	SAME AS 1-1.5
		3.7/3.4		2.25 - 2.5	SAME AS 1-1.5
3	T64-3.0 (H+A)		5	3 - 3.5	SILT: Brown, slightly damp, stiff, friable, trace of very fine sand, slightly clayey near top of interval.
			6		
4	T64-4.0 (H+A)		7	4 - 4.25	SAME AS 3.2-3.5
		4.6/3.0		4.25 - 4.75	CLAYEY SILT: Slightly damp, firm to stiff, light brown with dark brown mottle, slightly plastic.
			11		
5	T64-5.25 (H+A)		12	5.25 - 5.5	SAME AS 4.75-4.25
		3.3/2.7			

J.E. HARRIS & ASSOCIATES, INC.

LOG OF SOIL BORING SP1

Date: May 7, 1986

Weather: 70°F; sunny, clear; strong wind from West.

Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
			0 - 2.5	GRAVEL: (Road Bed) Gray to gray brown, dry, loose, rounded to angular, well graded up to 3 inches.
			2.5 - 2.75	SILTY CLAY: Dark brown with iron oxide staining, damp to moist, moderately plastic to plastic; soft to firm, some black carbon.
		1		
SP1-3.25 (H+A)		3		
SP1-3.75 (H+A)		4		
			3.75 - 4.0	SAME AS 2.5 - 2.75
				SAMPLE DRIVE BROKE, MOVED OVER TWO FEET.

BOEING ASSOCIATES

LOG OF SOIL BORING T62

Date: May 7, 1986

Weather: 70°; clear, sunny; light breeze from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - 0.25	SANDY SILT: Light gray brown, slightly moist, soft, thinly laminated.
	T62-0.75 (H+A)		2		CLAYEY SILT: Dark brown, moist slightly plastic, firm; trace of small subangular gravel and rusty metal fragments.
1		4.8/4.8	5	0.75 - 1.25	SAME AS 0 to 0.25 EXCEPT: Iron oxide specks and inclusions.
	T62-1.75 (H+A)		7		
2		8.0/5.0		1.75 - 2.0	CLAYEY SILT: Brown with dark brown mottle, moist, stiff, moderately plastic.
	T62-2.75 (H+A)		16		
3		5.2/4.8	17	2.75 - 3.75	SILT: Light brown with brown mottle, slightly damp, very stiff, friable, slightly to non-plastic occasional trace of very fine sand.
	T62-3.75 (H+A)		16		
4		16/5.2		3.75 - 4.0	SAME AS 2.75-3.25 but with iron oxide streaks.
		5.4/4.7	16	4.0 - 4.5	SAME AS 3.75- 4.0
5	T62-5.0 (H+A)		15		
		5.6/4.6	12	5.0 - 5.5	SAME AS 3.75 - 4.0

HARGIS - ASSOCIATES

LOG OF SOIL BORING SP1(A)

Date: May 7, 1986

Weather: 70°F; sunny, clear; strong wind from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
4			8	4.0 - 5.0	SILTY CLAY: Dark brown with brown mottle, damp to moist, very stiff, moderately plastic to plastic, traces of caliche and iron oxide staining.
			10		
5	SP1A-5.5 (H+A)		12		
	SP1A-6.0 (H+A)		13		
6		3.0/2.2		6.0 - 6.25	SAME AS 4.0 - 5.0
			11	6.5 - 7.0	CLAYEY SILT: Brown, slightly damp to damp, very stiff, slightly plastic, with caliche.
7	SP1A-7.5 (H+A)		14	7.5 - 7.75	SAME AS 6.5-7.0

HARGIS ASSOCIATES

LOG OF SOIL BORING SP2

Date: May 8, 1986

Weather: Sunny, clear; 64°F, very slight breeze from the East.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			8	0 - .5	SILT: Light brown to brown, dry to slightly damp, compact, sand, non-plastic; some trace gravel upper two inches.
		8.2/5.0			
	SP2-1.0 (H+A)		4		
1	E&E		5		
	SP2-2.0 (H+A)		8		
2	Split			2.0 - 2.75	SILTY CLAY: Dark brown, damp, stiff, plastic, trace of carbonaceous inclusions.
		8.0/5.0			
			8		
		6.0/			
3	SP2-3.25 (H+A)		9		
	SP2-3.75 (H+A)		13		
	Split				
4	SP2-4.25 (H+A)		15	4.25 - 4.5	SANDY SILT: Greenish brown, damp, very stiff, sand is very fine grained slightly plastic to friable, carbonaceous inclusions, mica.
		5.2/			
			11		
5	SP2-5.50 (H+A)		13	4.5 - 5.0	SANDY SILT: Green and light brown to brown, damp, compact, very fine grained sand, friable, carbonaceous inclusions, some mica.
		6.8/6.0			
6				5.5 - 5.75	SAME AS 4.5 - 5.0

HAROLD ASSOCIATES

LOG OF SOIL BORING LA1

Date: May 8, 1986

Weather: Clear, sunny: slight breeze from the West; 74°F.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0		8.0/6.2	5	0 - .5	SANDY SILT: Brown, dry to slightly damp, loose to compact, sand is fine to medium grained, subangular grains, friable, trace subangular to angular gravel.
1	LA1-1.0 (H+A)		5		
1	LA1-1.5 (H+A)		5		
2	LA1-2.0 (H+A) Split		7	2.0 - 2.25	CLAYEY SILT: Dark brown, damp, very stiff, moderately plastic with roots.
		9.5/2.5			
		8.5/	13	2.25 - 2.75	SAME AS 2.0-2.25
3	LA1-3.25 (H+A)		22		
	E&E		33		
4	LA1-4.25 (H+A)		30	4.25 - 4.5	SANDY SILT: Light brown to brown, slightly damp, hard, friable, fine grained; some sand, carbonaceous veins.
		9.0/6.0			
		5.4/			
5	LA1-5.25 (H+A)		22	4.5 - 4.75	SAME AS 4.25-4.75
	LA1-5.75 (H+A) Split		23	5.75 - 6.0	SANDY SILT: Silty sand light brown to tan, hard to dense, very friable, slightly damp, some mica.

AL FARGIS ASSOCIATES

LOG OF SOIL BORING T33

Date: May 8, 1986

Weather: Sunny, clear; light breeze from the West, 78°F.

Depth Interval (feet)	Sample Interval & Designation		OVA (ppm)	Blow Counts	Soil Description
0 - 0.5			5.0/5.0	2	SILTY CLAY: Dark brown, damp, soft, plastic; very uniform color.
	T33-1.0 (H+A)			3	
	E&E			4	
	T33-2.0 (H+A) Split			7	
2.0 - 2.25			10.0/		SILTY CLAY: Same as 0-0.5, except with a light brown sandy clayey silt mottle; sand in mottle is fine to medium grained and moderately plastic.
			6.8/	9	
2.25 - 2.75					SAME AS 2.0-2.25
	T33-3.25 (H+A)			9	
	E&E			10	
	T33-4.25 (H+A)			12	
4.25 - 4.5			6.2/		SANDY SILT: Greenish brown, moist, stiff, specks of iron oxide; moderately plastic, some mica.
			6.2/5.0		
4.5 - 4.75					SAME AS 4.5-4.75
5.75 - 6.0					SAME AS 4.5-4.75

HARGIS - ASSOCIATES

LOG OF SOIL BORING T32

Date: May 8, 1986

Weather: Clear, sunny; slight wind from the West; 78°F.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0		11.0/5.6	2	0 - 0.5	CLAYEY SANDY SILT: Dry to moist, brown, soft, sand is fine to medium grained, moderately plastic.
	T32-1.0 (H+A)		3		
1	E&E		5		
	T32-2.0 (H+A)		6		
2	Split	10.5/5.3		2.0 - 2.25	CLAYEY SILT: Brown, moist, soft, moderately plastic.
		5.8/7.5	10	2.25 - 2.75	SILTY CLAY: Dark brown, moist, plastic, very homogeneous.
	T32-3.25 (H+A)		8		
	E&E		8		
4	T32-4.25 (H+A)		7		
		8.0/6.0		4.25 - 4.5	SILTY SAND: With mica, light to medium brown, damp, stiff, slightly plastic, very fine to fine grained sand; some mica, some black specks.
5	T32-5.25 (H+A)	7.0/	8	4.5 - 4.75	SAME AS 4.25-4.5
	T32-5.75 (H+A)		7		
				6.0 - 6.25	SAME AS 4.5-4.75, except moist.

HAROLD ASSOCIATES

LOG OF SOIL BORING T31

Date: May 8, 1986

Weather: Sunny, clear; light to medium wind from West; 80°F.

Depth Interval (feet)	Soil Description	
0 - 0.5	SILTY SAND: Dry, light brown, loose, medium to coarse grained, subangular, friable.	
0.5 - 1.0	SILTY SAND: brown, slightly damp, compact, subangular, friable.	
1.0 - 1.5		
1.5 - 2.0		
2.0 - 2.25	SILTY CLAY: Dark brown, damp, stiff, plastic.	
2.25 - 2.75		
2.75 - 3.0		
3.0 - 3.75		
3.75 - 4.0	SILTY SAND: Light brown, with brown mottle, damp, stiff, slightly plastic, some mica, very fine to fine grained.	
4.0 - 4.75		
4.75 - 5.0		
5.0 - 5.25		
5.25 - 5.75		
5.75 - 6.0	SAME AS 3.75-4.0	
6.0 - 6.6		
6.6 - 7.0		

HARGIS - ASSOCIATES

LOG OF SOIL BORING T41

Date: May 9, 1986

Weather: Clear, dusk, no wind; 62°F.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			4		
1		9.2/9.2	4	0.75 - 1.0	CLAYEY SILT: Dark brown, damp, firm, slightly plastic.
	T41-1.5 (H+A)		6		
	T41-2.0 (H+A) Split		7		
2		12/8.8		2.0 - 2.25	SAME AS 0.75-1.0: Except moderately plastic with black carbon fragments.
		9.5/7.8			
			6	2.75 - 3.0	SAME AS 2.0-2.25
	T41-3.5 (H+A)		6		
		9.0/7.8		3.5 - 3.75	SAME AS 2.0-2.25
4		18.8/7.8	5	4.0 - 4.25	SAME AS 2.0-2.25
	T41-4.75 (H+A)		7		
5	T41-5.25 (H+A)		9		
	T41-5.75 (H+A)		10		
6		29/7.8		5.75 - 6.0	SAME AS 2.0-2.25

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LOG OF SOIL BORING T43

Date: May 9, 1986

Weather: 68°F; clear, calm.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			3	0 - 0.5	SILTY SAND: Gray brown, slightly damp, loose, fine to very fine grained. Predominantly subrounded quartz.
			5	0.5 - 1.0	SANDY SILT: Brown, slightly damp, stiff, slightly plastic.
1	T43-1.5 (H+A)		7		
	T43-2.0 (H+A)		9		
2					
			8	2.0 - 2.25	CLAYEY SILT: Greenish gray brown with brown and dark brown mottle, damp, stiff to very stiff. Moderately plastic; some fine roots.
3			8		
	T43-3.75 (H+A)		9	3.0 - 3.25	SAME AS 2.0-2.5
4					
		12.3/7.0	4	3.75 - 4.0	CLAYEY SILT: Dark brown with brown and light brown mottle, damp, very stiff, some fine roots.
	T43-5.0 (H+A)		5	4.25 - 4.5	CLAYEY SILT: Brown with light brown mottle, damp, stiff, moderately plastic; inclusions of sandy silt up to 1.5" sand is fine to medium.
5	T43-5.5 (H+A)		8		
	T43-6.0 (H+A) Split		9		
6		7.2/6.9		6.0 - 6.25	SAME AS 4.25-4.5 EXCEPT: No sandy silt inclusions.

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LOG OF SOIL BORING T44

Date: May 9, 1986

Weather: 67°F; clear, calm.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0		5.1/4.9	4	0 - 0.25	SANDY SILT: Gray brown, dry, loose sand is fine to very fine.
	T44-1.0 (H+A)		4	0.25 - 1.5	SILT: Greenish brown with dark brown mottle, slightly damp, stiff, slightly plastic. Caliche, trace of clay.
1		5.3/4.9	6		
	T44-2.0 (H+A)		6		
2				2.0 - 2.25	SAME AS 0-0.25
			6		
3			7	2.75 - 3.25	SAME AS 0-0.25: Except CLAYEY SILT, damp, moderately plastic.
	T44-3.75 (H+A)		8		
4	T44-4.25		10	4.25 - 4.50	SAME AS 2.75 - 3.25
		7.3/7.1			
5		8.9/8.9		4.75 - 5.25	SAME AS 2.75 - 3.25
	T44-5.75 (H+A)			5.75 - 6.0	SAME AS 2.75 - 3.25
6		8.9/8.9			

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LOG OF SOIL BORING T45

Date: May 9, 1986

Weather: 70° F; clear, calm.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - 0.5	SILT: Brown, dry, firm, slightly plastic, many fine roots, trace caliche; friable.
		8.1/8.1	4		
	T45-1.0 (H+A)		6		
1					
	T45-1.5 (H+A) Split		7		
	T45-2.0 (H+A)		8		
2				2.0 - 2.25	SILT: Dark brown, slightly damp, stiff, some orange and white specks; some fine roots, blocky fracture, friable, no caliche.
		8.1/8.1			
		6.7/6.7	4		
	T45-3.25 (H+A)		5		
3				3.25 - 3.75	SAME AS 2.0 - 2.25, Except damp to moist.
			6		
	T45-4.25 (H+A)		7		
4				4.25 - 5.25	SAME AS 3.25 - 3.75
		6.7/6.7			
		6.0/6.0	9		
5					
	T45-5.75 (H+A)		9		
		6.0/6.0		5.75 - 6.0	SAME AS 3.25 - 3.75
6					

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LOG OF SOIL BORING T51

Date: May 9, 1986

Weather: Clear, sunny; very slight breeze from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			3	0 - 0.5	SILT: Dark brown, dry to slightly damp, firm, friable; very homogeneous.
1	T51-1.0 (H+A)		4		
	T51-1.5 (H+A) Split		6		
2	T51-2.0 (H+A)		8	2.0 - 2.25	CLAYEY SANDY SILT: Light brown to brown with dark brown clayey streaks and white calcareous inclusions, damp, stiff, subrounded, fine grained sand, slightly plastic.
			9		
3	T51-3.25		11	2.25 - 2.75	SANDY SILT: Light brown, damp, very stiff, fine grained sand, friable to slightly plastic; carbonaceous inclusions.
			13		
4	T51-4.25		13	3.25 - 3.75	SAME AS 2.25 - 2.75
				4.5 - 4.75	SAME AS 2.25 - 2.75, except with worm burrows.
5	T51-5.25		9	5.25 - 6.25	SAME AS 2.25-2.75, Except iron staining in worm burrows, some burrows filled with clay.
			11		
6					

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LOG OF SOIL BORING T52A

Date: May 9, 1986

Weather: Sunny, clear; 84°F; breeze from the West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			3	0 - 1.0	SAND: White to tan, dry, loose, very fine to fine grained, subrounded, friable.
			5		
1			6	1.0 - 1.5	SILTY SAND: Light brown, slightly damp, stiff, very fine grained, friable.
			6		
2	T52A-2.0 (H+A)			2.0 - 2.25	SAME AS 1.0 - 1.5
			4		
			4	3.0 - 3.25	SILTY SAND, SANDY SILT: Light brown, damp, firm, very fine grained, friable.
	T52A-3.75 (H+A)		4		
				3.75 - 4.0	SAME AS 3.0-3.25.
4					

Due to poor recovery, moved drill rig over two feet and collected more sample (T52B).

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LOG OF SOIL BORING T52B

Date: May 9, 1986

Weather: 84°F; clear, sunny, breeze from the West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0				0 - 0.25	SILTY SAND, SANDY SILT: Slightly damp, stiff, very fine gravel.
			2		
1	T52B-1.25 (H+A)		3	0.75 - 1.25	CLAYEY SILT: Slag, wood chips, charcoal, brown, moist, soft moderately plastic.
2					
3	T52B-3.25 (H+A)			3.25 - 3.75	SANDY SILT: Brown, damp, stiff, friable; sweet odor.
			4		
4	T52B-4.25 (H+A)		5	4.25 - 4.5	SAME AS 3.25 - 3.75

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Date: May 9, 1971

Location: Ch... , ...

Depth (ft)	Interval (ft)	Remarks
0.1	0.1 - 0.2	14 Silt: ...
1	1.0 - 1.1	17 Silt: ...
2	2.0 - 2.1	19 Silt: ...
3	3.0 - 3.1	12 Silt: ...
4	4.0 - 4.1	17 Silt: ...

Silt: ...

Silt: ...

Silt: ...

Silt: ...

Silt: ...

Silt: ...

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LOG OF SOIL BORING T54

Date: May 9, 1986

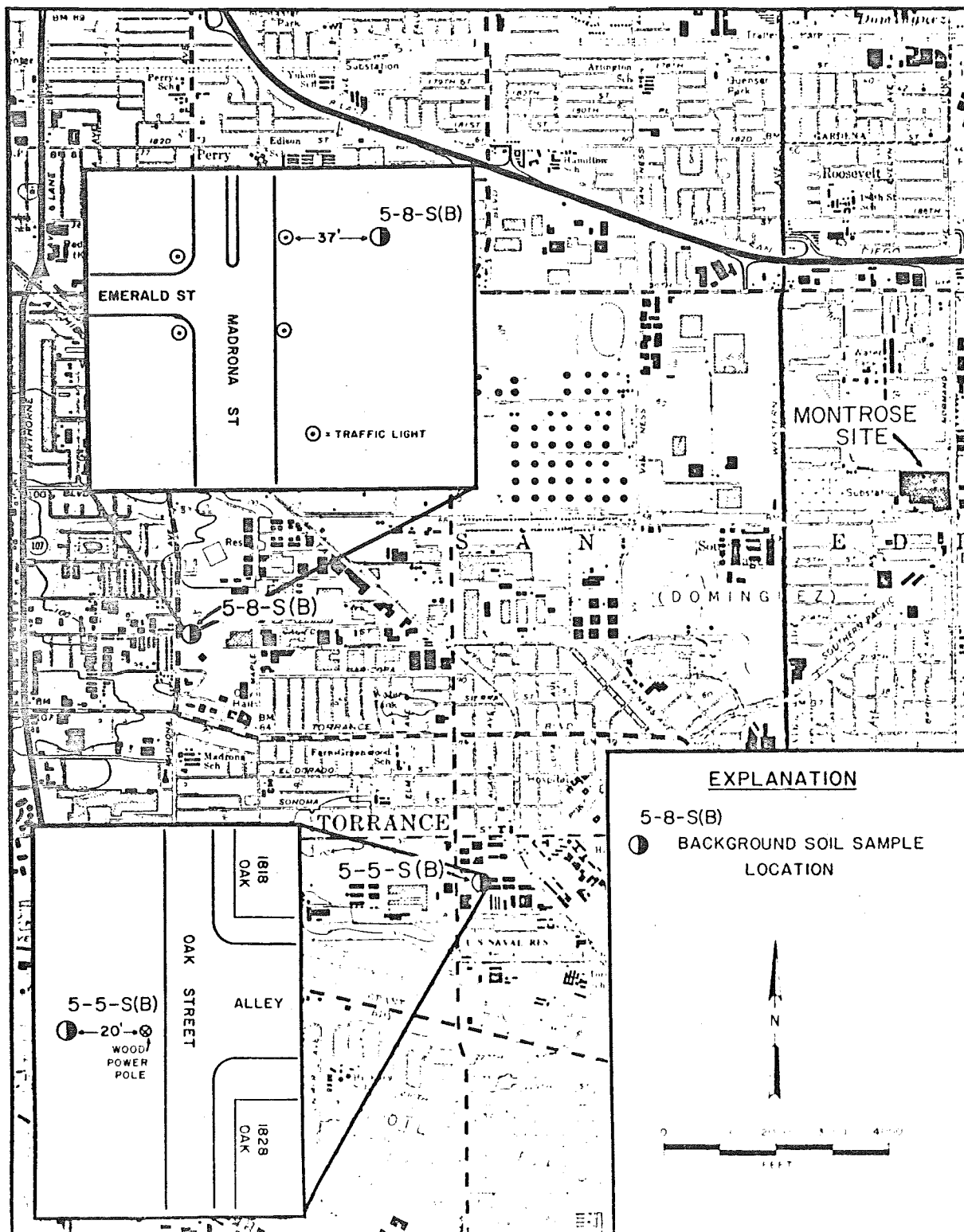
Weather: Sunny, clear, 80°F; wind from West.

	Sample Interval & Designation	OVA (ppm)	Blow Counts	Depth Interval (feet)	Soil Description
0			2	0 - .5	TOP SOIL: Mulch, mottled roots, dry.
1	T54-1.0 (H+A)		5	1 - 1.5	SANDY SILT: With mud cracks lined with clay; deck reddish brown, damp, fine to medium grained, trace clay, subrounded, friable with roots.
			7		
2	T54-2.0 (H+A)		10	2 - 2.50	SILTY SAND, SANDY SILT: Light brown to tan, slightly damp, compact to very stiff, very fine grained, 50/50 friable.
3	T54-3.0 (H+A)		9		
			10		
4	T54-4.0 (H+A)		11	4.0 - 4.50	SAME AS 2.0-2.25, Except burrowing filled with clay and iron oxide staining specks.
5	T54-5.0 (H+A)		14	5.0 - 5.5	SAME AS 4.0-4.25
			15		

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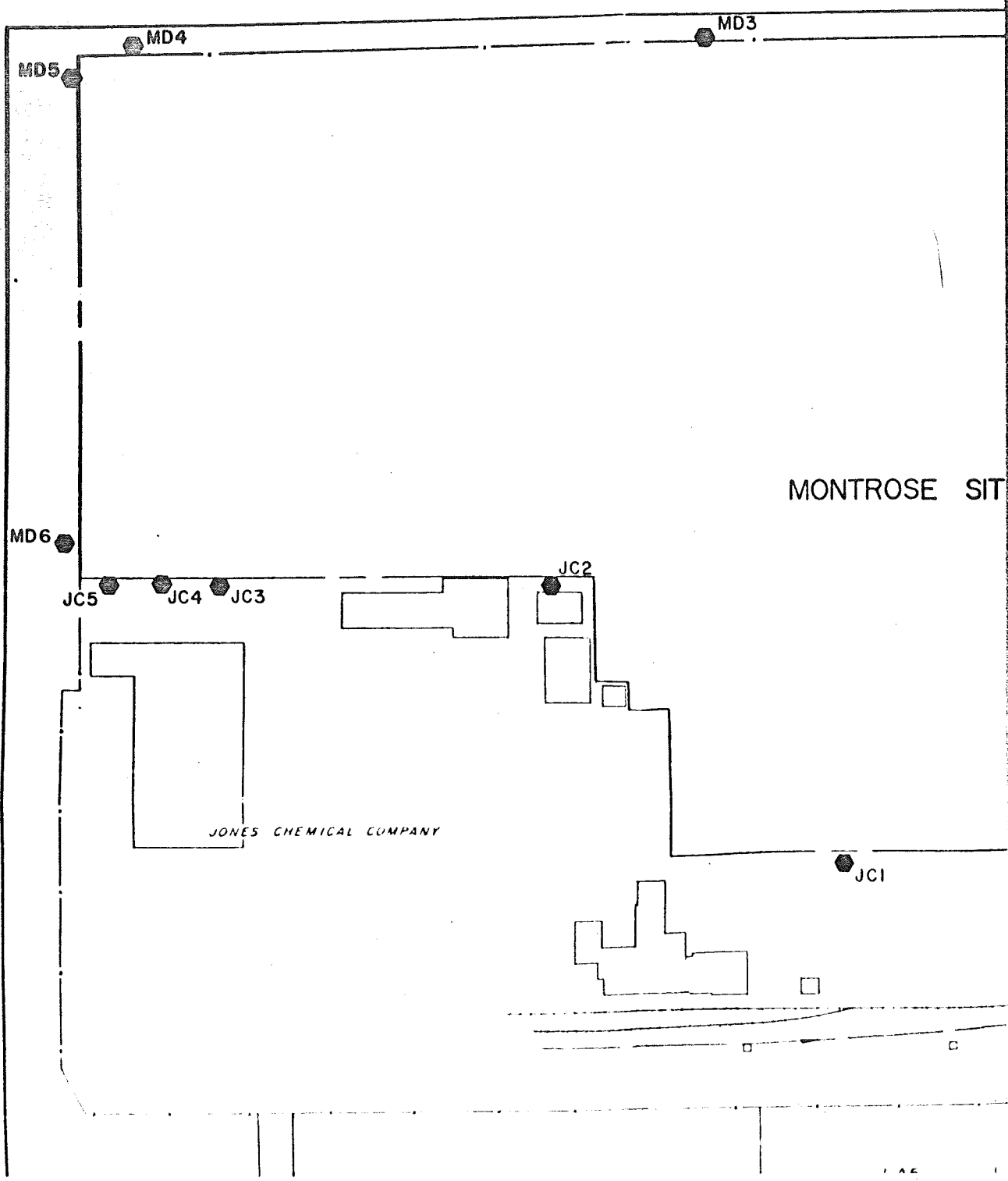
5820

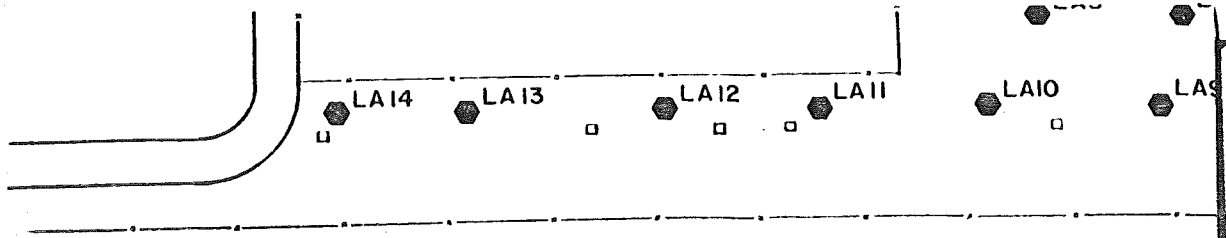
ILLUSTRATIONS



BACKGROUND SOIL SAMPLE LOCATIONS

HARGREAVE ASSOCIATES



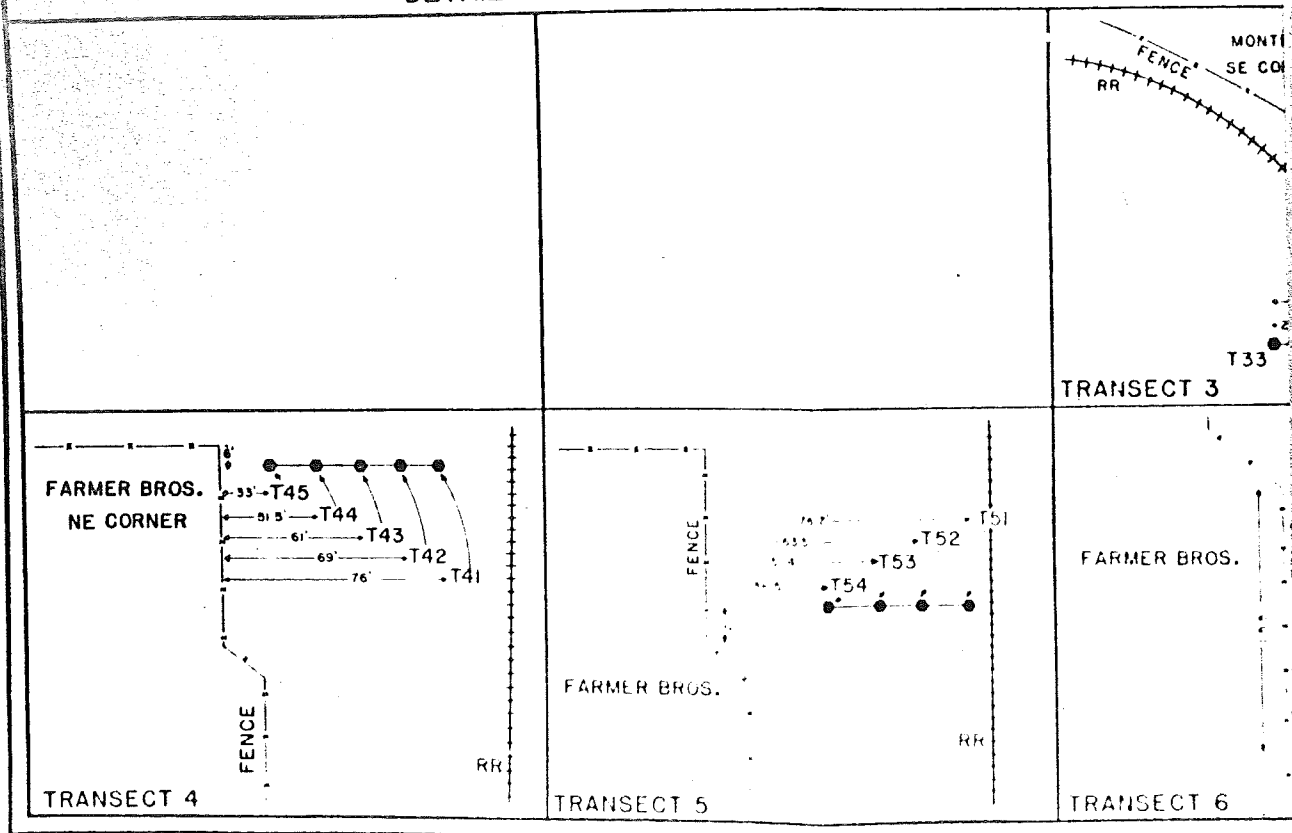


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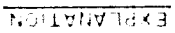
FARMER BROTHERS COFFEE

FARMER BROS. FACILITY

DETAIL OF TRANSECT SAMPLE LOCATIONS (NOT TO SCALE)

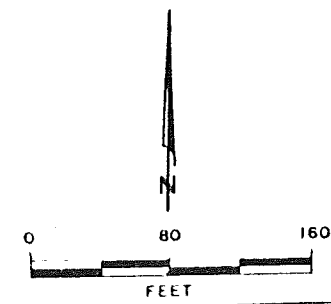
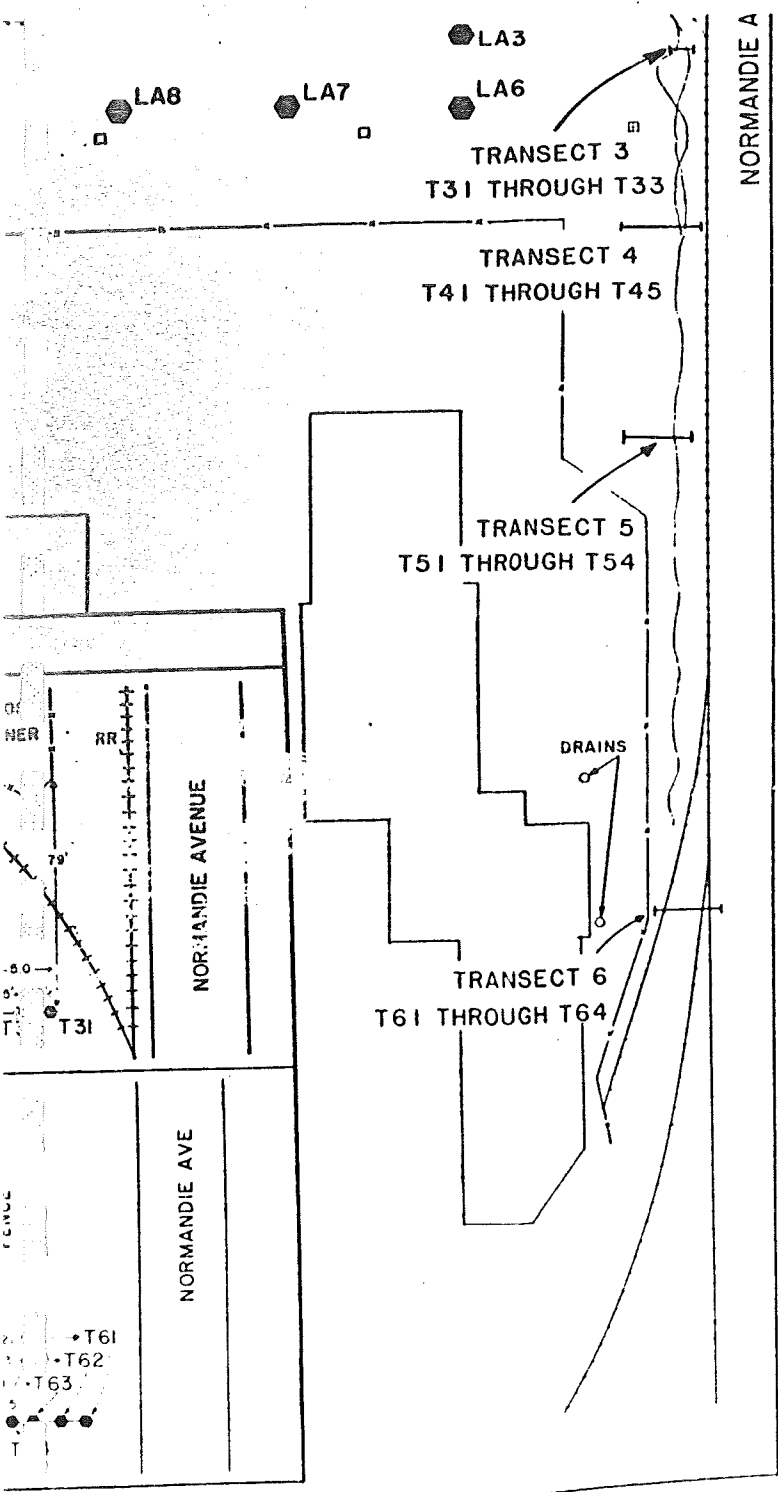


3



+++++ RAILROAD TRACK

SOIL SAMPLE LOCATION



MONTROSE CHEMICAL CORPORATION
TORRANCE, CALIFORNIA

OFF-SITE
SOIL SAMPLE LOCATIONS

HARGIS + ASSOCIATES, INC.
Consultants in Environmental Engineering
San Diego, CA
JUNE 1986

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